

# 水产学报 2022年6月 第46卷 第6期

## 目 次

刀鲚基因家族鉴定及扩张与收缩 .....	张金鹏, 高淑芳, 施永海, 严银龙, 齐 明, 刘其根 (897)
黄条鲮幼鱼胃排空特征、消化酶活性及摄食调控基因表达 .....	李明月, 高云红, 万金铭, 景琦琦, 关长涛, 张佳伟, 李文升, 翟介明, 王 茜, 贾玉东 (906)
红螯光壳螯虾响应长期水体盐度胁迫的基因和代谢通路 .....	刘树彬, 徐 畅, 贾永义, 顾志敏, 李二超 (917)
缢蛏过氧化氢酶基因的克隆及其功能 .....	乔晓静, 张卫卫, 邵钦娜, 赵雪琳, 李成华 (931)
GABA 受体拮抗剂荷包牡丹碱和 CGP52432 对厚壳贻贝幼虫变态的影响 .....	王林雨, 史 雪, 杨跃明, 王雨晴, 梁 箫, 杨金龙, 李一峰 (942)
基于人工神经网络的日本海舍氏贝乌贼角质颞色素沉积特性分析 .....	朱文斌, 陈炫好, 陆化杰, 陈子越, 宁 欣, 崔国辰, 郭 爱, 陈新军 (950)
马鞍列岛东部海域小黄鱼时空分布特征 .....	汪振华, 沈 慧, 林 军, 章守宇, 钟佳明, 陈奕帆, 刘章彬 (959)
南沙群岛重点岛礁潟湖微型浮游动物的群落结构与摄食 .....	赵常升, 刘 永, 肖雅元, 谢志超, 王学锋, 李纯厚 (973)
黄岛近海岸贝类养殖区细菌群落结构多样性及与环境因子响应 .....	马景雪, 张培玉, 王宗兴, 郑明刚, 高 萍, 曲凌云, 郑风荣 (984)
大陈洋产卵场保护区鱼类群落结构特征及其与环境因子的关系 .....	芮 银, 蒋日进, 王好学, 栾会妮, 印 瑞, 朱玉丹, 张琳琳 (995)
山东近海渔业物种多样性与环境因子的关系 .....	徐茂真, 张崇良, 薛 莹, 徐宾铎, 纪毓鹏, 任一平 (1008)
基于环境 DNA 的岩原鲤检测及生物量评估 .....	闫卉果, 董智玲, 马婷婷, 张连博, 王晓艳, 叶 华, 姚维志, 何文平 (1018)
长牡蛎和福建牡蛎个体生长模型的构建及比较 .....	姜妮妮, 蔺 凡, 曾志南, 宁 岳, 杜美荣, 房景辉, 高亚平, 方建光, 蒋增杰 (1027)
文蛤动态能量收支模型构建、验证与应用 .....	张 虎, 张俊波, 杨晨星, 贲成恺, 袁健美, 胡海生, 肖悦悦, 吕泽华, 万 荣 (1036)
胆汁酸对齐口裂腹鱼幼鱼脂肪沉积、脂肪代谢酶活性及相关基因表达的影响 .....	向 泉, 曾本和, 王 睿, 许耀升, 周兴华, 陈 建, 李代金, 朱成科, 林仕梅 (1045)
高植物蛋白饲料中添加蛋白酶对克氏原螯虾生长、免疫力及消化力的影响 .....	杨文秀, 陈效儒, 文 华, 吴 凡, 胡 伟, 郜卫华, 田 娟, 袁汉文, 徐树德 (1053)
大口黑鲈蛙病毒分子流行病学及组织病理分析 .....	杨展展, 林 强, 付小哲, 罗 霞, 刘礼辉, 梁红茹, 牛银杰, 左绍志, 张晓婷, 李宁求 (1063)
热应激对大菱鲆心肌损伤及细胞凋亡的影响 .....	郭晓丽, 黄智慧, 马爱军, 王庆敏, 徐荣静, 李 明, 陈志信 (1074)
洪湖碘泡虫在发病和隐性感染异育银鲫组织器官中的分布 .....	杨 坤, 翟凯旋, 刁丙文, 陈 凯, 谢 骏 (1085)
凡纳滨对虾血细胞图像流式检测与病原感染分析 .....	李 荣, 任星潮, 张 宁, 王 媛, 刘逸尘, 张亦陈, 耿绪云, 孙金生 (1094)
<b>· 综述 ·</b>	
17β-HSDs 的种类和功能概述及其在贝类中的研究进展 .....	曾 臻, 余美舜, 谭强来, 史 博, 李建波, 李伟杰, 蔡 广 (1104)
鱼类黏膜层微生物研究进展 .....	张艳敏, 杨国坤, 李克克, 孟晓林 (1117)

中国水产学会《水产学报》第十一届编辑委员会 (2019年1月1日)

CN 31 - 1283/S \* 1964 \* m \* 16 \* 232 \* zh \* p \* ¥ 80.00 \* 1500 \* 22 \* 2022-06

# JOURNAL OF FISHERIES OF CHINA

Vol. 46, No. 6, June, 2022

## CONTENTS

- Identification and analysis of gene families expansion and contraction in *Coilia nasus*  
..... ZHANG Jinpeng, GAO Shufang, SHI Yonghai, YAN Yinlong, QI Ming, LIU Qigen(897)
- Gastric evacuation characteristics, digestive enzyme activity and appetite-related genes expression in juvenile yellowtail kingfish (*Seriola aureovittata*) ..... LI Mingyue, GAO Yunhong, WAN Jinming, JING Qiqi, GUAN Changtao, ZHANG Jiawei, LI Wensheng, ZHAI Jieming, WANG Qian, JIA Yudong(906)
- Analysis of genes and metabolic pathways in response to long-term salinity stress in red crayfish (*Cherax quadricarinatus*)  
..... LIU Shubin, XU Chang, JIA Yongyi, GU Zhimin, LI Erchao(917)
- Characterization of a *catalase* gene from razor clam (*Sinonovacula constricta*)  
..... QIAO Xiaojing, ZHANG Weiwei, SHAO Yina, ZHAO Xuelin, LI Chenghua(931)
- Effects of GABA receptor antagonists bicuculline and CGP52432 on larval settlement and metamorphosis of the mussel (*Mytilus coruscus*) ..... WANG Linyu, SHI Xue, YANG Yueming, WANG Yuqing, LIANG Xiao, YANG Jinlong, LI Yifeng(942)
- Analysis of pigmentation characteristics on beak of *Berryteuthis magister shevtsovi* in the Japan Sea based on artificial neural networks  
..... ZHU Wenbin, CHEN Xuanyu, LU Huajie, CHEN Ziyue, NING Xin, CUI Guochen, GUO Ai, CHEN Xinjun(950)
- Spatial and temporal distribution of small yellow croaker (*Larimichthys polyactis*) in Eastern Ma'an Archipelago  
..... WANG Zhenhua, SHEN Hui, LIN Jun, ZHANG Shouyu, ZHONG Jiaming, CHEN Yifan, LIU Zhangbin(959)
- Community structure and grazing of microzooplankton in the key islands and reefs of Nansha Islands  
..... ZHAO Changsheng, LIU Yong, XIAO Yayuan, XIE Zhichao, WANG Xuefeng, LI Chunhou(973)
- Bacterial community structure diversity and environmental factors in the coastal shellfish culture area of Huangdao  
..... MA Jingxue, ZHANG Peiyu, WANG Zongxing, ZHENG Minggang, GAO Ping, QU Lingyun, ZHENG Fengrong(984)
- Characteristics of fish community structure and its relationship with environmental factors in Dachenyang spawning ground reserve  
..... RUI Yin, JIANG Rijin, WANG Haoxue, LUAN Huini, YIN Rui, ZHU Yudan, ZHANG Linlin(995)
- Relationship between species diversity and environmental factors in the fishery community of Shandong coastal waters  
..... XU Maozhen, ZHANG Chongliang, XUE Ying, XU Binduo, JI Yupeng, REN Yiping(1008)
- Detection and biomass assessment of *Procypris rabaudi* based on environmental DNA  
..... YAN Huiguo, DONG Zhiling, MA Tingting, ZHANG Lianbo, WANG Xiaoyan, YE Hua, YAO Weizhi, HE Wenping(1018)
- Construction and comparison of individual growth models of Pacific oyster (*Crassostrea gigas*) and Fujian oyster (*C. angulata*)  
..... JIANG Weiwei, LIN Fan, ZENG Zhinan, NING Yue, DU Meirong, FANG Jinghui, GAO Yaping, FANG Jianguang, JIANG Zengjie(1027)
- Construction, validation and application of dynamic energy budget model for benthic bivalve clam (*Meretrix meretrix*)  
..... ZHANG Hu, ZHANG Junbo, YANG Chenxing, Ben Chengkai, YUAN Jianmei, HU Haisheng, XIAO YueYue, LÜ Zehua, WAN Rong(1036)
- Effects of dietary bile acid on lipid deposition, lipid metabolism enzyme activities and related gene expression to juvenile *Schizothorax prenanti* ..... XIANG Xiao, ZENG Benhe, WANG Rui, XU Yaosheng, ZHOU Xinghua, CHEN Jian, LI Daijin, ZHU Chengke, LIN Shimei(1045)
- Effects of dietary protease supplementation in high-plant-protein diets on the growth, immunity and digestion of red swamp crayfish (*Procambarus clarkii*) ..... YANG Wenxiu, CHEN Xiaoru, WEN Hua, WU Fan, HU Wei, GAO Weihua, TIAN Juan, YUAN Hanwen, XU Shude(1053)
- Molecular epidemiology and histopathological analysis of largemouth bass ranavirus  
..... YANG Zhanzhan, LIN Qiang, FU Xiaozhe, LUO Xia, LIU Lihui, LIANG Hongru, NIU Yinjie, ZUO Shaozhi, ZHANG Xiaoting, LI Ningqiu(1063)
- Effects of thermal stress on turbot (*Scophthalmus maximus*) myocardial injury and apoptosis  
..... GUO Xiaoli, HUANG Zhihui, MA Aijun, WANG Qingmin, XU Rongjing, LI Ming, CHEN Zhixin(1074)
- Tissue tropism of *Myxobolus honghuensis* in diseased and asymptomatic gibel carp (*Carassius auratus gibelio*)  
..... YANG Kun, ZHAI Kaixuan, XI Bingwen, CHEN Kai, XIE Jun(1085)
- Imaging flow cytometry measurement and pathogens infection analysis of *Litopenaeus vannamei* hemocytes  
..... LI Rong, REN Xingchao, ZHANG Ning, WANG Yuan, LIU Yichen, ZHANG Yichen, GENG Xuyun, SUN Jinsheng(1094)
- ROUNDUP •
- Review of types and functions of 17 $\beta$ -HSDs and related research progress in mollusks  
..... ZENG Zhen, YU Meishun, TAN Qianglai, SHI Bo, LI Jianbo, LI Weijie, CAI Guang(1104)
- Research progress of mucosal microorganisms of fish ..... ZHANG Yanmin, YANG Guokun, LI Keke, MENG Xiaolin(1117)